**Amendments to the Claims**

This listing of claims will replace all prior versions and listings of claims in the present application.

1. (Currently Amended) An electrofusion microelectrode for manipulating cells or cellular components which comprises a conducting filament encased in a tube, wherein a first (medial) end of the filament has a tip which protrudes from~~, and is flattened against~~ a first (medial) end of the tube, the first (medial) end of the filament being broadened at the tip, and wherein a second (distal) end of the filament protrudes from a second (distal) end of the tube and wherein the second (distal) end of the filament is configured to allow the filament to remain relatively fixed within the tube and to allow connection to a direct current power source.

2. (Original) An electrofusion microelectrode which comprises a tube, wherein at least a portion of the inner walls are painted with a liquid electric conductor and wherein the painted electric conductor extends continually from a first (medial) end of the tube to a second (distal) end of the tube, wherein the liquid electric conductor is further painted on a least a portion of the outer (lateral) edge of both the first (medial) and second (distal) ends of the tube, wherein an area on the outer wall of the tube at the second (distal) end is painted with the electric conductor and wherein the painted area of the outer wall of the tube at the second (distal) end meets the painted area of the outer (lateral) edge of the second (distal) end of the tube, and wherein the distal end of the tube is connectable to a direct current power source.

3. (Original) An electrofusion microelectrode which comprises a conducting filament encased in a tube, wherein a first (medial) end of the filament extends toward a first (medial) end of the tube, and wherein a second (distal) end of the conducting filament protrudes from a second (distal) end of the tube, wherein at least a portion of the inner walls near the first (medial) end of the tube is painted with an electric conductor in an area where the conducting filament does not extend, and wherein the second (distal) end of the conducting filament is configured to allow the filament to remain fixed within the tube and to allow connection to a direct current power source.

4. (Original) The electrofusion microelectrode of any of claims 1-3 wherein the tube is shaped as a holding pipette.

5. (Original) The electrofusion microelectrode of any of claims 1-3 wherein the first (medial) end of the tube is sealed.

6. (Original) The electrofusion microelectrode of any of claims 1-3 wherein the first (medial) end of the tube is open.

7. (Original) The electrofusion microelectrode of any of claims 1-3 wherein the tube is made of plastic, PVC, ceramic, or metal.

8. (Original) The electrofusion microelectrode of any of claims 1-3 wherein the tube is made of glass.

9. (Original) The electrofusion microelectrode of claims 1 or 3 wherein the conducting filament is made of a metal, metal alloy, or mixture of metals.

10. (Original) The electrofusion microelectrode of claim 9 wherein the metal or metal alloy is at least one of aluminum, copper, silver, gold, titanium, platinum, or tungsten.

11. (Original) The electrofusion microelectrode of any of claims 1-3 wherein the second (distal) end of the tube is connectable to a vacuum or hand held aspirator.

12. (Original) The electrofusion microelectrode of claim 11 wherein the hand held aspirator is a pipette holder.

13. (Currently Amended) The electrofusion microelectrode of any of claims 1-3 ~~wherein the electrofusion microelectrode is mounted on a tool holder~~ further comprising:

a tool holder on which the electrofusion microelectrode is mounted.

14. (Currently Amended) The electrofusion microelectrode of claim 13 ~~wherein the tool holder is controlled by a micromanipulator~~ further comprising:

a micromanipulator which controls the tool holder.

15. (Canceled)

16. (Original) The electrofusion microelectrode of claims 1 or 3, wherein the second (distal) end of the conducting filament is configured by being bent or looped towards the outer wall of the tube or being wrapped around the outer wall of the tube.

17. (Canceled)

18. (Canceled)

19. (Canceled)

20. (Canceled)

21. (New) An electrofusion microelectrode for manipulating cells or cellular components which comprises a conducting filament in a tube, wherein a first (medial) end of the filament protrudes from a first (medial) end of the tube, the first (medial) end of the tube being open, and wherein a second (distal) end of the filament protrudes from a second (distal) end of the tube, wherein the second (distal) end of the filament is configured to allow the filament to remain relatively fixed within the tube and to allow connection to a direct current power source.

22. (New) The electrofusion microelectrode of claim 22, wherein the tube is shaped as a holding pipette.

23. (New) The electrofusion microelectrode of claim 22, wherein the tube is made of plastic, PVC, ceramic, or metal.

24. (New) The electrofusion microelectrode of claim 22, wherein the tube is made of glass.

25. (New) The electrofusion microelectrode of claim 22, wherein the conducting filament is made of a metal, metal alloy, or a mixture of metals.

26. (New) The electrofusion microelectrode of claim 26, wherein the metal or metal alloy is at least one of aluminum, copper, silver, gold, titanium, platinum, or tungsten.

27. (New) The electrofusion microelectrode of claim 22, wherein the second (distal) end of the tube is connectable to a vacuum or hand held aspirator.

28. (New) The electrofusion microelectrode of claim 28, wherein the hand held aspirator is a pipette holder.

29. (New) The electrofusion microelectrode of claim 22 further comprising:

a tool holder on which the electrofusion microelectrode is mounted.

30. (New) The electrofusion microelectrode of claim 22 further comprising:

a micromanipulator which controls the tool holder.

31. (New) The electrofusion microelectrode of claim 22, wherein the second (distal) end of the conducting filament is configured by being bent or looped towards the outer wall of the tube or being wrapped around the outer wall of the tube.

32. (New) A system for manipulating cells or cellular components comprising:

a direct current power source comprising a positive and negative terminal;

first and second electrofusion microelectrodes, each comprising a conducting filament in a tube, wherein a first (medial) end of the filament protrudes from a first (medial)

end of the tube, the first (medial) end of the tube being open, and wherein a second (distal) end of the filament protrudes from a second (distal) end of the tube, wherein the second (distal) end of the filament is configured to allow the filament to remain relatively fixed within the tube, wherein the second (distal) end of the filament from the first electrofusion microelectrode is connected to the positive terminal of the direct current power source and the second (distal) end of the filament from the second electrofusion microelectrode is connected to the negative terminal of the direct current power source.

33. (New) The system of claim 33, wherein the direct current power source is capable of delivering at least 1 kilovolt per centimeter of direct current.

34. (New) The system of claim 33, wherein each of the tubes of the first and second electrofusion microelectrodes is shaped as a holding pipette.

35. (New) The system of claim 33, wherein each of the tubes of the first and second electrofusion microelectrodes is made of plastic, PVC, ceramic, or metal.

36. (New) The system of claim 33, wherein each of the tubes of the first and second electrofusion microelectrodes is made of glass.

37. (New) The system of claim 33, wherein each of the conducting filaments of the first and second electrofusion microelectrodes is made of a metal, metal alloy, or a mixture of metals.

38. (New) The system of claim 38, wherein the metal or metal alloy is at least one of aluminum, copper, silver, gold, titanium, platinum, or tungsten.

39. (New) The system of claim 33, wherein each of the second (distal) ends of the tube of the first and second electrofusion microelectrodes is connectable to a vacuum or hand held aspirator.

40. (New) The system of claim 40, wherein the hand held aspirator is a pipette holder.

41. (New) The system of claim 40 further comprising:

an aspirator or suction device connected to each of the second (distal) ends of the tube of the first and second electrofusion microelectrodes.

42. (New) The system of claim 33 further comprising:

a first and second tool holder on which each of the first and second electrofusion microelectrodes is mounted.

43. (New) The system of claim 33 further comprising:

a first and second micromanipulator each of which controls the tool holder.

44. (New) The system of claim 33, wherein each of the second (distal) ends of the conducting filament of the first and second electrofusion microelectrodes is configured by being bent or looped towards the outer wall of the tube or being wrapped around the outer wall of the tube.